



ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

SUBSONIC ENGINES

ENGINE IDENTIFICATION: GE90-90B
UNIQUE ID NUMBER: 3GE065
COMBUSTOR: DAC II
ENGINE TYPE: TF

BYPASS RATIO: 8.4
PRESSURE RATIO (π_{00}): 39.8
RATED THRUST (F_{00}) (kN): 418.1

REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO _x	SMOKE NUMBER
D _p /F ₀₀ (g/kN) or SN	0.6	16.1	72.1	0.6
AS % OF ORIGINAL LIMIT	3.1	13.6	60.3	3.8
AS % OF CAEP/2 LIMIT (NO _x)			75.4	
AS % OF CAEP/4 LIMIT (NO _x)			83.3	
AS % OF CAEP/6 LIMIT (NO _x)			91.8	
AS % OF CAEP/8 LIMIT (NO _x)			103.4	

DATA STATUS

- PRE-REGULATION
x CERTIFICATION
- REVISED (SEE REMARKS)

TEST ENGINE STATUS

x NEWLY MANUFACTURED ENGINES
- DEDICATED ENGINES TO PRODUCTION STANDARD
- OTHER (SEE REMARKS)

EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE
(ANNEX 16 VOLUME II)

CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)

x OUT OF PRODUCTION (DATE: -)
- OUT OF SERVICE (DATE: -)

MEASURED DATA

MODE	POWER	TIME	FUEL FLOW	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
	SETTING (%F _{oo})	(minutes)	(kg/s)	HC	CO	NO _x	
TAKE-OFF	100	0.7	3.414	0.04	0.15	53.21	2.0
CLIMB OUT	85	2.2	2.772	0.04	0.15	39.13	1.8
APPROACH	30	4.0	0.899	0.07	0.98	17.47	1.8
IDLE	7	26.0	0.300	0.39	12.70	5.86	1.8
LTO TOTAL FUEL (kg) or EMISSIONS (g)			1193	218	6231	28459	-
NUMBER OF ENGINES				3	3	3	3
NUMBER OF TESTS				5	5	5	5
AVERAGE D _p /F _{oo} (g/kN) or AVERAGE SN (MAX)				0.5	14.9	68.1	
SIGMA (D _p /F _{oo} in g/kN, or SN)							
RANGE (D _p /F _{oo} in g/kN, or SN)				0.25-0.84	13-16.7	64.1-71.9	0-2.03

ACCESSORY LOADS

POWER EXTRACTION 0 (kW)
STAGE BLEED 0 (% CORE FLOW)

AT - POWER SETTINGS
AT - POWER SETTINGS

ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	97.5-98.6
TEMPERATURE (K)	283-301
ABS HUMIDITY (kg/kg)	0.0036-0.0151

FUEL

SPEC	Jet A
H/C	1.91-1.94
AROM (%)	18.1-19.3

MANUFACTURER: General Electric Company
TEST ORGANIZATION: GE90 Eval Engineering
TEST LOCATION: Site IIID, PTO, Peebles, Ohio
TEST DATES: 24/04/1997-19/06/1997

REMARKS

1. GE Report R96AEB292.
2. Engine S/S 900-173, 900-166 & 900-167
3. DAC II combustor

Compliance with Fuel Venting requirements:

- ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)